

Serial Number 09/628,427

APPENDIX A
(Clean Copy Of Amended Claims)

B¹ 18. (Amended) An air cooler for an enclosed electrical machine,
wherein the enclosed electrical machine includes a casing having an inlet and an outlet,
and

wherein said air cooler comprises:

a heat dissipation device;

a closed coolant circulation structure that connects said outlet with said heat dissipation device, and that connects said heat dissipation device with said inlet; and

a fan situated within the casing and arranged to pump a coolant out of the casing through said outlet and through said closed coolant circulation structure to said heat dissipation device, said fan being further arranged to pump said coolant back into said casing from said heat dissipation device through said closed coolant circulation structure and through said inlet, and

wherein at least said heat dissipation device is an independent structure relative to said casing.

B² 21. (Amended) An air cooler device as claimed in claim 18, wherein said fan is driven by an output shaft of the rotational electrical machine, and further including a separate gas pump in said closed coolant circulation structure.

B³ 26. (Amended) An air cooler device as claimed in claim 18, wherein said closed coolant circulation structure and heat dissipation device comprise tubular structures, each installed with exterior and interior cooling fins.

B⁴ 29. (Amended) An air cooler device as claimed in claim 18, wherein said closed coolant circulation structure includes a removable closing means for permitting access to an interior of the closed coolant circulation structure for maintenance and cleaning.

B⁵ 32. (Amended) An air cooler device as claimed in claim 18, wherein the inlet and outlet are respectively provided at a front end and a rear end of the casing, wherein the heat dissipation

Serial Number 09/628,427

B5
Amended.

device is installed on an exterior of said casing, and wherein a casing of the air cooler device encloses said casing of the electrical machine to form said closed coolant circulation structure.

B6

35. (Amended) An air cooler for an enclosed electrical machine, wherein the enclosed electrical machine includes a casing having an inlet and an outlet, and

wherein said air cooler comprises:

a heat dissipation device;

a closed coolant circulation structure that connects said outlet with said heat dissipation device, and that connects said heat dissipation device with said inlet;

a fan situated within the casing and arranged to pump a coolant out of the casing through said outlet and through said closed coolant circulation structure to said heat dissipation device, said fan being further arranged to pump said coolant back into said casing from said heat dissipation device through said closed coolant circulation structure and through said inlet; and

wherein said closed coolant circulation structure includes an inlet pipe and an outlet pipe.

36. (Amended) An air cooler device as claimed in claim 18, wherein said enclosed rotational electrical machine is a transmission mechanism and an outside of the casing forms an air chamber, and wherein several heat absorbing fins are installed at an inside of the air chamber to transfer additional heat from the interior of the transmission mechanism to the air chamber, the air chamber having a bent circuit shape to increase a heat absorbing effect.

B7

40. (Amended) An air cooler device as claimed in claim 18, wherein heat dissipated by said heat dissipation device heats a heating target.

B8

42. (Amended) An air cooler device as claimed in claim 40, wherein the closed coolant circulating structure includes a distributing pipe and a control valve for controlling an amount of hot coolant that flows through the distributing pipe past the heating target.

Serial Number 09/628,427

B9 44. (Amended) An air cooler device as claimed in claim 42, wherein an outside of said distributing pipe is further installed with an air guiding pipe to provide heat exchanged output to additional heating targets.